AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1. (Currently Amended) : In [[an]] a multi-protocol label switching system (MPLS) having a working path over which data is carried from a source to a destination and further having a protection path over which data from the source to the destination can be carried, a method of initiating an MPLS protection path switch over from the working path to the protection path comprising:

a. detecting a failure on the working path at a first switching node of the working path;

b. transmitting a failure notification message from only a first switching node to at least a second, switching node of the working path; and

c. routing data from the working path to the protection path upon the receipt of the failure notification message at at least one of the second switching node and a third switching node of the working path, wherein the at least one of the second switching node and the third switching node is at an origin of both the working path and the protection path.

Claim 2. (Previously Presented) : The method of Claim 1 further including the step of re-routing data from the protection path to the working path upon the determination that the failure on the working path has been corrected.

Claim 3. (Previously Presented) : The method of Claim 1 wherein the failure notification message travels along a path through the MPLS system, extending between the destination and the source.

Claim 4. (Currently Amended) : A multi-protocol label switching (MPLS) system protection switch comprising:

a first data input port into which MPLS data is received from a data source;

a first data output port from which MPLS data is sent to a second MPLS switching system comprising an MPLS working path;

a second data output port from which MPLS data is sent to a third MPLS switching system comprising an MPLS protection path; and

a second data input port adapted to connect to a path that follows the MPLS working path for receiving failure notifications;

whereby data received at the data input port from the data source can be selectively routed from the second MPLS switching system to the third MPLS switching system <u>by a node at an origin of both the MPLS working path and the MPLS protection path</u>.

Claim 5. (Currently Amended) : The MPLS switching system of Claim 4 further comprising a control input port where protection path failure messages are received from at least one of the second MPLS switching system and the third MPLS switching system.

Claim 6. (Currently Amended) : A multi-protocol label switching (MPLS) system comprised of:

a first MPLS protection switch having a data input port into which MPLS data is received from a data source;

a second MPLS switching system coupled to the first MPLS protection switch via a first data path carrying MPLS data, the first data path comprising an MPLS working path;

a third MPLS switching system coupled to the first MPLS protection switch via a second data path capable of carrying MPLS data, the second data path comprising an MPLS protection path;

an upstream reverse notification tree (RNT) data path <u>that follows the MPLS working path and</u> ~~extending~~ <u>extends</u> at least between the second MPLS switching system to the <u>first</u> MPLS protection switch carrying ~~data~~ <u>a failure notification</u> by which a switchover from [[a]] <u>the</u> MPLS working path to [[a]] <u>the MPLS</u> protection path<u>, by a node at an origin of the MPLS working path and the MPLS protection path,</u> can be initiated.

Claim 7. (Previously Presented) : The method of Claim 1, wherein the first switching node is upstream to the failure.

Claim 8. (Previously Presented) : The method of Claim 1, wherein the failure is an uplink failure and is detected by a node upstream to the failure.

Claim 9. (Previously Presented) : The method of Claim 1, wherein the failure is a downlink failure and is detected by a node downlink to the failure.

Claim 10. (Previously Presented) : The method of Claim 1, wherein the failure is a bi-directional failure and is detected by a pair of nodes downlink and uplink to the failure.

Claim 11. (Previously Presented) : The method of Claim 1, wherein the failure is a node failure and is detected by a pair of nodes downlink and uplink to the failure.

Claim 12. (Currently Amended) : A method for MPLS protection switching from a working path to a protection path comprising:

       transmitting a failure notification to a protection switch node along a path that follows the working path; and

       routing data at the protection switch node from the working path to the protection path upon receipt of the failure notification, wherein the protection switch node is at an origin of the working path and the protection path.

Claim 13. (Previously Presented) : The method of Claim 12, wherein the failure notification is transmitted in a direction reverse to the working path.

Claim 14. (Previously Presented) : The method of Claim 12, wherein the path that follows the working path mirrors the working path.

Claim 15. (Previously Presented) : The method of Claim 12, further comprising detecting a failure.

Claim 16. (Previously Presented) : The method of Claim 12, wherein the failure notification is transmitted by a node upstream to the failure.

Claim 17. (Previously Presented) : The method of Claim 15, wherein the failure is an uplink failure and is detected by a node upstream to the failure.

Claim 18. (Previously Presented) : The method of Claim 15, wherein the failure is a downlink failure and is detected by a node downlink to the failure.

Claim 19. (Previously Presented) : The method of Claim 15, wherein the failure is a bi-directional failure and is detected by a pair of nodes downlink and uplink to the failure.

Claim 20. (Previously Presented) : The method of Claim 15, wherein the failure is a node failure and is detected by a pair of nodes downlink and uplink to the failure.